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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/646,512 | 08/23/2003 | James J. deBlanc | 200206166-1 | 9663 |

22879 7590 10/31/2006

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EXAMINER

WOOD, KEVIN S

ART UNIT PAPER NUMBER

2874

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/646,512 | Applicant(s) DEBLANC ET AL. | |
| | Examiner Kevin S. Wood | Art Unit 2874 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-30 is/are pending in the application.
- 4a) Of the above claim(s) 1-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

NON-FINAL REJECTION

Response to Amendment

1. This action is responsive to the Amendment filed on 8 August 2006. Claim 21 has been amended. Claims 1-19 have been withdrawn. Claims 20-30 are pending in the application.

Response to Arguments

2. Applicant's arguments with respect to claims 20-30 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 20-22 and 24-30 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,944,361 to Xue et al.

Referring to claims 20-22 and 24-30, the Xue et al. reference discloses all the limitations of the claimed invention. The Xue et al. reference discloses an optical cross connect apparatus, comprising: a first planar layer (E) comprising m optical paths (OUT(y)); a second planar layer (A) comprising n optical paths (IN(x)); and an optical switch comprising a plurality of optical switches, wherein the optical switches (202) permit optically coupling any optical path of the first planer layer with any optical path of the second planar layer. The Xue et al. reference discloses the m optical paths (OUT(y)) cross each of the n optical paths (IN(x)) to form a plurality of crossing points; wherein each optical switch is located at an associated crossing point between the first (E) and second (A) planar layers. The Xue et al. reference discloses that each optical path (OUT(y) and IN(x)) is formed within a selected layer of the first (E) and second layers (A); wherein the selected optical path is disposed within a channel with one of the layers. The Xue et al. reference discloses internally reflecting claddings (502,504) surrounding each optical core medium. The Xue et al. reference discloses the cross section perpendicular to the route of the selected optical paths (OUT(y) and IN(x)) is substantially non-circular. The See Fig. 1-5 along with their respective portions of the specification.

5. Claims 20 and 23-24 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication 2004/0042708 to Koh et al.

Referring to claims 20 and 23-24, the Koh et al. reference discloses all the limitations of the claimed invention. The Koh et al. reference discloses an optical cross

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connect apparatus, comprising: a first planar layer (104) comprising m optical paths; a second planar layer (204) comprising n optical paths; and an optical switch comprising a plurality of liquid crystal optical switches (102), wherein the optical switches (102) permit optically coupling any optical path of the first planer layer with any optical path of the second planar layer. The See Fig. 2A-2B along with their respective portions of the specification.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin S. Wood whose telephone number is (571) 272-2364. The examiner can normally be reached on Monday-Thursday (7am - 5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney B. Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink that reads "Kevin S. Wood". The signature is written in a cursive, flowing style.

Kevin S. Wood
Patent Examiner